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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,126	09/17/2003	Bradley L. Todd	2003-IP-010228U1	4729

7590 07/22/2009
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EXAMINER

FIGUEROA, JOHN J

ART UNIT	PAPER NUMBER
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1796

MAIL DATE	DELIVERY MODE
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07/22/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/664,126	Applicant(s) TODD ET AL.	
	Examiner John J. Figueroa	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-18,20-31, 47-68,82 and 83 is/are pending in the application.
- 4a) Of the above claim(s) 23-27,31,50-54 and 68 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-18,20-22,28-30,47-49,55-67,82 and 83 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/23/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Appeal Brief

1. Applicant's arguments filed in the appeal brief of April 20, 2009 are deemed persuasive in that United States Patent Number (USPN) 6,387,986 B1 to Moradi-Araghi (hereinafter 'Moradhi-Araghi') does not disclose or suggest a method of forming a filter cake using the claimed composition with the elected species, that is, (poly)orthoester. In addition, an update of the search has uncovered further prior art upon which this Office Action relies upon.
2. The 35 U.S.C. 102(b) rejection of claims 15-18, 20-23, 29, 30, 47-50, 56-64, 66 and 67 over United States Patent Number (USPN) 6,387,986 B1 to Moradi-Araghi, hereinafter 'Moradi-Araghi' made of record in item 1 on page 2 of the Office Action of March 18, 2008 (hereinafter 'FOA') has been withdrawn.
3. The 35 U.S.C. 103(a) rejection of claims 15, 23, 28, 47, 50, 55, 65, 82 and 83 over Moradi-Araghi in view of either USPN 5,728,652 to Dobson et al. (hereinafter 'Dobson'); USPN 5,191,931 to Himes et al (hereinafter 'Himes '); or USPN 4,531,594 to Cowan (hereinafter 'Cowan'), previously made of record in item 2 on page 2 of FOA has been withdrawn.

Election/Restrictions

4. Applicant's election to prosecute the claims in Group I of the restriction requirement and the election of poly(orthoesters) as the species for the degradable material was acknowledged previously in FOA. This restriction requirement was deemed proper and made Final in a prior Office Action.

5. Accordingly, claims 15-18, 20-22, 28-30, 47-49, 55-67, 82 and 83 have been examined whereas claims 23-27, 31, 50-54 and 68 have been withdrawn as drawn to a non-elected invention/species but remain pending in the current application.

Claim Rejections - 35 USC § 112

6. **The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.**

7. Claim 83 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim is indefinite because the preamble recites the claim depending from "[t]he method of claim 47". Independent claim 47 is drawn to a well drill-in and servicing fluid and there is no method step recited in this independent claim. It is unclear as to whether Applicant intended the rejected claim to depend from the *fluid* of claim 47 or, alternatively, from one of the *method* claims.

Claim Rejections - 35 USC § 102

8. Claims 15-18, 20-22, 28-30, 47-49, 55-67, 82 and 83 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,783,527 to Dobson et al., hereinafter "Dobson'527).

The following rejection addresses nonelected species and generic claims not limited to the elected species.

Dobson'527 discloses an alkaline water-based well fluid that deposits an easily degradable and easily removable filter cake on the sides of a borehole during an oilfield drilling operation, wherein the fluid contains one or more polysaccharide polymers, sized bridging particles, and a peroxide selected from alkaline earth metal peroxides, zinc peroxide, and mixtures thereof, and wherein the deposited filter cake contains peroxide. (Abstract) During use of the fluid in a drilling operation, the peroxide is incorporated within the filter cake as an integral component thereof wherein subsequent contacting of the filter cake with an acidic solution activates the peroxide such that polymers within the filter cake are degraded, and wherein said polymer can be a polysaccharide. (Col. 2, lines 36-64; col. 2, line 65 to col. 3, line 17)

Dobson'527 further discloses that the drilling fluid composition preferably contains bridging agents, such as sized calcium carbonate; wherein the polysaccharide can be a biopolymer (such as guar gum or xanthan), a starch derivative and/or a cellulose derivative (which are, of course, also viscosifiers); and wherein the liquid can be brine, such as an inorganic salt. (Col. 3, line 46 to col. 4, line 14; col. 5, line 51 to col.

6, line 43; col. 7, lines 37-44) The sized bridging particles can be up to 44 microns.
(Example formulation/method on col. 9)

Dobson'527 disclose that a preferred embodiment for the drilling fluid contains one or more polysaccharide polymers, sized bridging particles, weighting particles, peroxide, and preferably sodium thiosulfate as required for stability against free radicals at elevated temperatures; wherein drilling of a hydrocarbon-containing formation with this fluid will place a filter cake on the sides of the borehole containing the polysaccharide polymers, peroxide, and bridging particles; and wherein upon completion of the drilling operation, the filter cake is removed from the sides of the borehole. (Col. 10, line 32 to col. 11, line 23)

Thus, the instant claims are anticipated by Dobson'527.

Claim Rejections - 35 USC § 103

9. Claims 15-18, 20-22, 28-30, 47-49, 55-67, 82 and 83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dobson'527 in view of USPN 7,080,688 B2 to Todd et al., hereinafter 'Todd'.

This rejection is to address Applicant's elected species discussed above.

Dobson'527 was discussed above. Although Dobson'527 discloses the fluid composition to contain degradable material/polymers, it does not expressly disclose the degradable polymer to be an orthoester or a poly(orthoester), which are acid-releasing ethers.

However, Todd'688 teaches a method for treating a subterranean formation, such as degrading a filter cake deposited on a subterranean formation, wherein the method comprises providing particulates coated with an acid-releasing degradable material; placing the particulates into the formation so they form a pack adjacent to a filter cake; allowing said acid-releasing degradable material to produce acid to, thereby, degrade an acid-soluble filter cake; and removing said filter cake material from the formation. (Abstract; col. 3, lines 9-37) The particulates coated with the acid-releasing degradable material releases acid over a desired period of time (delayed rate of release) to dissolve the acid-soluble filter cake. (Col. 4, lines 3-45)

Todd'688 further discloses substantially water-insoluble compounds/polymers as preferred acid-releasing degradable materials that release acid over a sustained period of time, such as water-insoluble esters including orthoesters, poly(orthoesters), lactides and glycolide. (Col. 3, lines 39-47) The coated particles can be present in an amount of 0.1 to 20% by composition weight. (Col.4, lines 57-65)

Therefore, it would have been obvious to a person of ordinary skill in the art at the time that the claimed invention was made to choose orthoester or poly(orthoester) as the delayed acid-releasing component/degradable material in Dobson'527. It would have been obvious to one skilled in the art to do so to attain a resultant subterranean formation treatment composition additive that provides a more efficient process for degrading a filter cake due by having the ability to manipulate the release time of the acid that degrades the filter cake as taught by Todd'688.

Thus, the claims are unpatentable over Dobson'527 and Todd'688.

Response to Arguments

The 35 U.S.C. 102 Rejection over Moradi-Araghi (item 1 on page 2 of FOA)

10. Applicant's arguments in Response traversing the 35 U.S.C. 102(b) rejection as anticipated by Moradi-Araghi have been considered but deemed moot in view of the withdrawal of this rejection in favor the new grounds of rejections presented above.

The 103 Rejection over Moradi-Araghi, Dobson, Himes and Cowan (item 2 on page 2 of FOA)

11. Applicant's arguments in Response traversing the captioned 35 U.S.C. 103 rejection have been considered but deemed but deemed moot in view of the withdrawal of this rejection in favor the new grounds of rejections presented above.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Figueroa whose telephone number is (571)272-8916. The examiner can normally be reached on Monday-Thursday 8:00-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1796

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James J. Seidleck/

Supervisory Patent Examiner, Art Unit 1796

JJF/JS